

CHAMBERS CREEK BASIN

12091100 FLETT CREEK AT TACOMA, WA

LOCATION.--Lat $47^{\circ}11'23''$, long $122^{\circ}31'08''$, in NE $\frac{1}{4}$ SW $\frac{1}{4}$, sec.26, T.20 N., R.2 E., Pierce County, Hydrologic Unit 17110019, on right bank upstream of 75th Street bridge, 0.6 mi upstream from mouth and 0.7 mi west of city limits of Tacoma.

DRAINAGE AREA.--7.33 mi², excludes 0.68 mi² storm drainage diverted to Leach Creek basin but does not include some urban storm drainage diverted into the basin.

PERIOD OF RECORD.--June 1959 to September 1985, October 1985 to September 1996 (seasonal records). October 1996 to current year.

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 189.32 ft above NGVD of 1929 (levels by USGS National Mapping Division). Prior to Oct. 11, 2000, at same site and at datum 5.74 ft higher.

REMARKS.--Records fair, except for estimated daily discharges and discharges below 5.0 ft³/s, which are poor. Storm sewer drainage upstream from station. Several diversions for irrigation and industrial use. At times during winter months 1,000 gpm are pumped into creek for short intervals from Mountain View Memorial Park. Since October 1979, Flett Creek flood control retention ponds store and release flood water upstream from station. Chemical analyses October 1964 to September 1965.

AVERAGE DISCHARGE.--34 years (water years 1960-85, 1997-2004), 10.9 ft³/s, 7,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203 ft³/s, Feb. 8, 1996, gage height, 3.08 ft, site and datum then in use, from rating curve extended above 115 ft³/s; minimum discharge, 0.09 ft³/s, Oct. 23-25, Nov. 11, 12, 1987, Sept. 5, 6, 9-15, 18, 2002.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s, Jan. 30, gage height, 10.94 ft; minimum discharge, 0.16 ft³/s, July 19, 20, Aug. 28 to Sept. 10, but may have been less during period of missing record.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.28	2.2	31	11	41	15	10	5.1	7.6	0.53	e0.17	0.19
2	0.28	4.2	22	11	39	14	9.3	4.7	7.8	0.46	e0.17	0.16
3	0.28	4.3	20	11	41	15	9.3	4.2	9.7	0.41	e0.18	0.16
4	0.28	2.2	18	9.5	33	17	9.0	3.9	6.8	0.39	e0.18	0.16
5	0.28	1.6	18	8.5	31	17	8.6	3.7	6.0	0.38	e0.20	0.16
6	0.50	1.5	22	8.7	23	17	8.6	3.3	5.8	0.34	e0.50	0.16
7	0.30	1.4	22	19	21	16	8.2	4.0	5.9	0.34	e0.80	0.17
8	0.46	1.2	21	40	17	15	8.2	6.4	5.7	0.30	e0.60	0.17
9	0.34	1.0	18	40	15	14	8.0	9.4	3.2	0.28	e0.40	0.17
10	0.34	1.2	15	26	14	13	7.4	7.7	3.7	0.27	e0.30	0.18
11	0.37	1.1	17	34	13	12	7.8	9.1	3.8	0.24	e0.28	1.6
12	0.68	0.84	18	20	13	12	7.7	7.7	3.9	0.24	e0.25	6.4
13	0.40	0.96	24	19	12	12	8.0	6.6	6.3	0.24	e0.25	8.6
14	0.39	0.67	37	21	18	12	8.2	5.7	6.7	0.24	e0.24	8.1
15	1.3	0.80	23	31	17	11	11	5.5	5.2	0.21	e0.24	5.4
16	3.0	1.5	22	20	19	11	8.7	5.3	4.0	0.20	e0.24	4.1
17	1.2	1.3	19	19	23	11	9.4	5.0	3.8	0.20	e0.25	8.9
18	0.40	2.9	14	19	23	12	8.2	5.2	3.4	0.20	0.24	14
19	0.62	38	12	20	22	14	8.8	4.5	2.7	0.17	0.24	15
20	10	38	14	17	21	11	11	4.2	1.9	e0.17	0.24	7.1
21	39	36	13	15	16	10	8.8	4.2	1.6	e0.18	0.67	3.1
22	57	25	12	13	14	11	7.9	4.5	1.4	e0.18	0.95	2.9
23	59	18	11	19	13	9.9	7.5	5.5	1.1	e0.17	0.25	2.9
24	48	18	12	23	13	13	6.7	4.7	0.94	e0.18	0.61	1.5
25	25	15	14	22	12	17	6.9	4.7	0.81	e0.19	1.9	1.6
26	18	12	12	22	14	18	6.6	8.2	0.68	e0.19	0.74	1.5
27	26	8.9	12	20	21	17	6.1	15	0.60	e0.18	0.21	0.87
28	12	12	13	19	21	16	5.8	19	0.56	e0.17	0.17	0.88
29	6.0	41	11	32	17	13	6.1	14	0.52	e0.17	0.16	0.59
30	4.2	28	9.7	58	---	13	5.7	11	0.46	e0.17	0.16	0.63
31	3.0	---	9.7	43	---	11	---	9.1	---	e0.17	0.16	---
TOTAL	318.90	320.77	536.4	690.7	597	419.9	243.5	211.1	112.57	7.76	11.95	97.35
MEAN	10.3	10.7	17.3	22.3	20.6	13.5	8.12	6.81	3.75	0.25	0.39	3.25
MAX	59	41	37	58	41	18	11	19	9.7	0.53	1.9	15
MIN	0.28	0.67	9.7	8.5	12	9.9	5.7	3.3	0.46	0.17	0.16	0.16
AC-FT	633	636	1,060	1,370	1,180	833	483	419	223	15	24	193

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

MEAN	4.30	10.6	19.5	23.8	23.3	20.2	14.4	8.58	5.35	2.93	1.68	2.38
MAX	18.7	32.4	40.2	54.9	53.9	52.1	32.4	29.9	15.6	10.9	5.24	9.81
(WY)	(1998)	(1991)	(1999)	(1997)	(1999)	(1972)	(1991)	(1996)	(1997)	(1983)	(1983)	(1997)
MIN	0.13	1.39	3.14	1.93	1.69	5.81	2.96	2.39	0.45	0.25	0.18	0.14
(WY)	(1988)	(2003)	(1977)	(1977)	(1977)	(1962)	(1977)	(1977)	(2003)	(2003)	(2002)	(2002)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR	FOR 2004 WATER YEAR	WATER YEARS 1959 - 2004
ANNUAL TOTAL	3,666.39	3,567.90	
ANNUAL MEAN	10.0	9.75	
HIGHEST ANNUAL MEAN			10.9
LOWEST ANNUAL MEAN			21.7
HIGHEST DAILY MEAN	59	Oct 23	2.87
LOWEST DAILY MEAN	0.15	Jul 12	1997
ANNUAL SEVEN-DAY MINIMUM	0.17	Jul 6	1977
ANNUAL RUNOFF (AC-FT)	7,270	7,080	138 Nov 15, 2001
10 PERCENT EXCEEDS	26	22	0.09 Oct 24, 1987
50 PERCENT EXCEEDS	6.3	7.4	0.10 Aug 29, 2002
90 PERCENT EXCEEDS	0.24	0.21	0.95

e Estimated